

## Passaic River Community Advisory Group Draft Requests for Information and Technical Assistance

### Technical Assistance Request

The Passaic River Community Advisory Group (CAG) understands that there are several available technologies for decontaminating sediments. Sediment washing and thermal treatment technologies were previously tested using small amounts of Passaic River sediments. The CAG feels strongly these small volumes do little to provide knowledge of the ability for these technologies to be applied at full-scale, and that a number of the technologies under consideration have never been used in full-scale application anywhere much less on similar sediments and conditions to the Passaic. As such, we welcome the chance to gain further insight and information that would be available from the proposed pilot testing of materials from river mile 10.9. However, we are not comfortable with simply relying on vendor reports and endorsements, or the ultimate conclusions of the CPG.

The CAG Subcommittee would like to have access to one or more independent technical experts who are not associated with the specific vendors or technologies being evaluated to provide us with an independent analysis of the strengths and limitations of sediment washing, thermal treatment and any other viable technologies and provide an evaluation and recommendations directly to the CAG.

Technologies to review would include, but not be limited to, technologies proposed by vendors that have responded to USEPA Region 2's request for interested parties to treat the contaminated sediment at River Mile 10.9, to include the "Cement Lock" process (Volcano Properties, LLC) and the Biogenesis process.

Technical review experts will require expertise in air quality monitoring, organic contaminant chemistry and preferably, environmental engineering.

Review tasks will include:

- a. Brief summary of available sediment treatment technologies, where they have been used before, and their historical effectiveness,
- b. Identification of sediment decontamination vendor permits and/or construction plans for decontamination facilities in the Newark Bay/Passaic River region, if available
- c. A summary of the sediment decontamination bench scale and/or pilot tests being developed or implemented by the Cooperating Parties Group for River Mile 10.9 sediment removal action in Lyndhurst, New Jersey
- d. A review of the reports listed below in relation to the Passaic River Superfund Project (lower 17 miles of the Passaic River), and the key lessons learned they provide in consideration of a final remedy,
- e. Identification of other possible reports, studies, and information that describe sediment decontamination technologies, processes, construction, waste streams, etc. of the decontamination technology(ies). Identified reports would be considered for use in a possible second phase independent technical review.
- f. Assessment of the capacity of each technology to scale up to handle the potential volume of sediment for the Passaic River cleanup, including processing time and estimated logistical needs of the technology (including acreage for the decontamination facility(ies)).
- g. Listing of potential emissions and by-products of each technology.
- h. Make recommendations on other decontamination technologies that might be suitable to use to treat Passaic River sediments, if any are found during research.
- i. Evaluate the beneficial use end-products that are commercially viable.

## **Additional Information Request**

The CAG would like to obtain general information about the condition of the lower eight miles of the River that is easily understood and shared within the community. We have heard the River characterized in different ways over the years as both a well-mixed brew of contaminants and containing a number of hot spots. We are looking to EPA to provide or assist in obtaining and organizing contaminant data including the water column, surface sediment, river bank, tidal flats, and core sampling. We would like the data presented in a visual form, such as a map and/or chart indicating the location of the samples, dates of sampling, contaminants sampled and results over time. We would also like a comparison of this data to background and commonly-used regulatory standards to more fully understand the levels and extent of contaminants in the water and sediment.

Separately, we would like information on the fish and biota studies synthesized into an easily understandable chart or similar presentation.

## **Main Reports to review**

- BioGenesis Enterprises, Inc. 2011. Approach to Sediment Decontamination for Lower Passaic River Using the BioGenesis Sediment Decontamination Technology. July 15, 2011.
- BioGenesis Washing BGW, LLC. 2009. Demonstration Testing and Full-Scale Operation of the Biogenesis Sediment Decontamination Process, Final Report. December 17, 2009.
- Tetra Tech, Inc. 2011. Summary of Project and Design Updates for Cement-Lock Technology Manufacturing Plant. Memorandum from S. McGee, Tetra Tech to A. Hendricks, Volcano Partners. November 30, 2011.
- Gas Technology Institute. 2008. Cement-Lock Technology for Decontaminating Dredged Estuarine Sediments, Final Project Report. November 2008.
- Endesco Clean Harbors, LLC. 2008. Sediment Decontamination Demonstration Program – Cement-Lock Technology, Final Report: Phase II Demonstration Tests with Stratus Petroleum and Passaic River Sediments. July 2008.
- Gas Technology Institute. 2008. Cement-Lock Technology for Decontaminating Dredged Estuarine Sediments, Topical Report on Beneficial Use of Ecomelt from Passaic River Sediment at Montclair State University, New Jersey. April 2008.

## **Optional Reports**

- Endesco Clean Harbors, LLC. 2006. Sediment Decontamination Demonstration Program: Cement-Lock Technology Phase I Pilot Test, Final Report. August 2006.
- Endesco Clean Harbors, LLC. 2007. Sediment Decontamination Demonstration Program – Cement-Lock Technology, Topical Report: Phase II – Equipment Modifications and Confirmation Test with Sediment from the Stratus Petroleum Site. October 2007.
- Gas Technology Institute and Endesco Clean Harbors, LLC. 2007. Technical Memorandum, Cement-Lock Technology for Decontaminating Dredged Estuarine Sediments: Phase II – Demonstration-Scale Project. November 2006-March 2007.
- Gas Technology Institute. 2008. Memorandum, Cement-Lock Update. March 27, 2008.